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| 10/797,197      | 03/11/2004  | Masashi Ito          | 50395-257           | 4729             |

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McDERMOTT, WILL & EMERY  
600 13th Street, N.W.  
Washington, DC 20005-3096

EXAMINER

GRAYBILL, DAVID E

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2822     |              |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                               |                              |  |
|------------------------------|-------------------------------|------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/797,197 | Applicant(s)<br>ITO, MASASHI |  |
|                              | Examiner<br>David E. Graybill | Art Unit<br>2822             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-7 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

The disclosure is objected to because of the following informalities: At page 11, line 19, reference character "3b" is inconsistent with the remaining disclosure of "first facet 3a." See, e.g., page 13, line 1.

Appropriate correction is required.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, 5-7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art.

At paragraphs 48-54, applicant admits as prior art all of the claim limitations including wherein said first facet 3a provides a coating including a first layer 7a in physical contact with said light-modulating region and a second layer 7b in physical contact with said first layer and in at least indirect physical contact with said first facet, said first layer having a first refractive index and said second layer having a second refractive index; and wherein said first facet provides a coating including a first layer in physical contact with said light-generating region and a second layer in physical contact with said first layer and in at least indirect physical contact with said first facet, said first layer having a first refractive index and said second layer having a second refractive index.

However, applicant does not appear to explicitly admit as prior art the second refractive index greater than the first refractive index, said second layer being made of material selected from a group of titanium oxide and tantalum oxide; wherein the first layer is made of a material selected from a group of silicon nitride, silicon oxide, silicon oxi-nitride and aluminum oxide.

Nonetheless, applicant admits as prior art the first refractive index greater than the second refractive index, said first layer being made of material selected from a group of titanium oxide and tantalum oxide; wherein the second layer is made of a material selected from a group of silicon nitride, silicon oxide, silicon oxi-nitride and aluminum oxide.

Moreover, as reasoned from well established legal precedent, it would have been an obvious matter of design choice bounded by well known manufacturing constraints and ascertainable by routine experimentation merely reverse the arrangement of the first layer and the second layer of the admitted prior art because applicant has not disclosed that, in view of the admitted prior art, the arrangement is for a particular **unobvious** purpose, produces an unexpected result, or is otherwise critical. Moreover, it has been held that limitations directed to rearrangement of parts are prima facie obvious absent a disclosure that the limitations are for a particular **unobvious** purpose, produce an unexpected result, or are otherwise critical. In re Japikse 86 USPQ 70 (CCPA 1950); for example, reversal of parts was held to have been obvious. In re Gazda 104 USPQ 400 (CCPA 1955). "We agree with the board that, where desired, conversion of overlap from opposite sides of the plate to the same side would be a simple expedient of choice. This would be no more than an obvious reversal of arrangement and not patentable." In re Weber, 136 USPQ 442 (C.C.P.A. 1963). "The obvious reversal of parts employed by the accused device is necessarily included within the minimal equivalency to which even a patent granted on a small advance over a prior crowded art is entitled." Sears, Roebuck & Co. et al. v. Jones et al., 135 USPQ 149. Moreover, "simple adjustment of spatial

orientation" has been held to be obvious. *Colt Industries Operating Corp. v. Index Werke, K.G. et al.*, 217 USPQ 1176 (DC 1982).

In the alternative, claims 1, 2, 5-7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art as applied to claims 1, 2, 5-7 and 10 supra, and further in combination with Kumiko (JP04-299591).

Applicant's admitted prior art does not appear to explicitly disclose the second refractive index greater than the first refractive index, said second layer being made of material selected from a group of titanium oxide and tantalum oxide; wherein the first layer is made of a material selected from a group of silicon nitride, silicon oxide, silicon oxo-nitride and aluminum oxide.

Nonetheless, applicant admits as prior art the first refractive index greater than the second refractive index, said first layer being made of material selected from a group of titanium oxide and tantalum oxide; wherein the second layer is made of a material selected from a group of silicon nitride, silicon oxide, silicon oxo-nitride and aluminum oxide.

Furthermore, in the English description, drawings and abstracts, Kumiko discloses wherein a first facet "output side," provides a coating including a first layer 2 in physical contact with a light-generating region "laser" and a second layer 3 in physical contact with said first layer and in at least indirect physical contact with said first facet said first layer having a

first refractive index and said second layer having a second refractive index greater than said first refractive index, said second layer being made of material selected from a group of titanium oxide and tantalum oxide, an wherein the first layer is made of a material selected from a group of silicon nitride, silicon oxide, silicon oxi-nitride and aluminum oxide. Moreover, it would have been obvious to combine this disclosure of Kumiko with the disclosure of applicant's admitted prior art because, as disclosed by Kumiko, it would provide a durable device with good reproducibility such as refractive-index control and film thickness control.

In addition, applicant admits as prior art the first refractive index greater than the second refractive index, said first layer being made of material selected from a group of titanium oxide and tantalum oxide; wherein the second layer is made of a material selected from a group of silicon nitride, silicon oxide, silicon oxi-nitride and aluminum oxide. In addition, Kumiko discloses the mere reversal of this arrangement. Moreover, as reasoned from well established legal precedent, it would have been an obvious matter of design choice bounded by well known manufacturing constraints and ascertainable by routine experimentation merely reverse the arrangement of the first layer and the second layer of the admitted prior art as disclosed by Kumiko because applicant has not disclosed that, in view of the applied prior art, the arrangement is for a

particular **unobvious** purpose, produces an unexpected result, or is otherwise critical. Moreover, it has been held that limitations directed to rearrangement of parts are prima facie obvious absent a disclosure that the limitations are for a particular **unobvious** purpose, produce an unexpected result, or are otherwise critical. In re Japikse 86 USPQ 70 (CCPA 1950); for example, reversal of parts was held to have been obvious. In re Gazda 104 USPQ 400 (CCPA 1955). "We agree with the board that, where desired, conversion of overlap from opposite sides of the plate to the same side would be a simple expedient of choice. This would be no more than an obvious reversal of arrangement and not patentable." In re Weber, 136 USPQ 442 (C.C.P.A. 1963). "The obvious reversal of parts employed by the accused device is necessarily included within the minimal equivalency to which even a patent granted on a small advance over a prior crowded art is entitled." Sears, Roebuck & Co. et al. v. Jones et al., 135 USPQ 149. Moreover, "simple adjustment of spatial orientation" has been held to be obvious. Colt Industries Operating Corp. v. Index Werke, K.G. et al., 217 USPQ 1176 (DC 1982).

Still further, Kumiko discloses that the first and second layer of applicant's admitted prior art and the first and second layer of Kumiko are alternatives and equivalents; therefore, as reasoned from well established legal precedent, it would have been obvious to substitute the first and



second layer of Kumiko for the first and second layer of applicant's admitted prior art. See *In re May* (CCPA) 136 USPQ 208 (It is our opinion that the substitution of Wille's type seal for the cement of Hallauer in Figure 1 would be obvious to persons of ordinary skill in the art from the disclosures of these references, merely involving an obvious selection between known alternatives in the art and the application of routine technical skills.); *In re Cornish* (CCPA) 125 USPQ 413; *In re Soucy* (CCPA) 153 USPQ 816; *Sabel et al. v. The Wickes Corporation et al.* (DC SC) 175 USPQ 3; *Ex parte Seiko Koko Kabushiki Kaisha Co.* (BdPatApp&Int) 225 USPQ 1260; and *Ex parte Rachlin* (BdPatApp&Int) 151 USPQ 56. See also *Smith v. Hayashi*, 209 USPQ 754 (Bd. of Pat. Inter. 1980) (However, there was evidence that both phthalocyanine and selenium were known photoconductors in the art of electrophotography. "This, in our view, presents strong evidence of obviousness in substituting one for the other in an electrophotographic environment as a photoconductor." 209 USPQ at 759.). An express suggestion to substitute one equivalent component or process for another is not necessary to render such substitution obvious. *In re Fout*, 675 F.2d 297, 213 USPQ 532 (CCPA 1982). "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their

having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980) (citations omitted). "For example, where a claimed apparatus requiring Phillips head screws differs from a prior art apparatus describing the use of flathead screws, it might be hard to find motivation to substitute flathead screws with Phillips head screws to arrive at the claimed invention. However, the prior art would make it more than clear that Phillips head screws and flathead screws are viable alternatives serving the same purpose. Hence, the prior art would 'suggest' substitution of flathead screws for Phillips head screws albeit the prior art might not 'motivate' use of Phillips head screws in place of flathead screws. Ex parte Jones, 62 USPQ2d 1206 (BdPatApp&Int 2001). See also In re Crockett, 279 F.2d 274, 126 USPQ 186 (CCPA 1960); Ex parte Quadranti, 25 USPQ2d 1071 (Bd. Pat. App. & Inter. 1992).

Applicant's remarks filed 4-4-7 have been fully considered and are adequately treated supra.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-

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MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**For information on the status of this application applicant should check PAIR:**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Alternatively, applicant may contact the File Information Unit at (703) 308-2733. Telephone status inquiries should not be directed to the examiner. See MPEP 1730VIC, MPEP 203.08 and MPEP 102.**

Any other telephone inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Graybill at (571) 272-1930. Regular office hours: Monday through Friday, 8:30 a.m. to 6:00 p.m.  
The fax phone number for group 2800 is (571) 273-8300.

  
David E. Graybill  
Primary Examiner  
Art Unit 2822

D.G.  
15-Jun-07

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